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Editorial

EDITORIAL

A CUT ABOVE

At the recent Operation Respect Conference, Dr. Paul Anderson used statistical generalities to paint a bleak picture of hunters. Carving up hunters as a slice of society with the same failures and weaknesses he suggested that half drink when they hunt, half trespass, 10% are mentally impaired, 10% are visually impaired, 10% have impaired hearing, 25% have criminal tendencies and 12% have actual criminal records. Some who have had bad experiences with hunters will probably agree but most of the sportsmen present, myself included, took exception to this unflattering self-portrait.

Perhaps half of the hunters do drink at one time or another but only a handful are arrested each year for hunting while intoxicated. Even though hunters may drink an occasional beer while riding around in their pick-up trucks, wardens encounter very few staggering through the woods with a gun in their hand. It has been my experience that if hunting gets slow and drinking begins, hunting is promptly forgotten.

Perhaps half of the hunters have trespassed in their lifetime but 1979 arrest records show that of 61,024 hunters checked, only 1109 were arrested for trespass, more like 2% than 50%. On a brief survey of 150 sportsmen, 52% said they had trespassed at least one time. Trespass is the most common hunting violation but it makes up only 25% of the arrests.

It is difficult to comment on the mental and physical impairment. At least one-fourth of the hunting accidents are judgement errors that could be attributed in part to these flaws. However, we are only talking about 20 incidents, scarcely evidence that 150,000 potential disasters are walking around out there.

As for the criminal tendencies. There are definitely some undersirable among hunters. Records show that 261 out of 11,564 arrested were repeat offenders. Most genuine criminals don't respect hunting laws either and do their hunting illegally at night or out of season.

So Dr. Anderson, though your figures represent the way hunters should be according to the law of average, I maintain they are much better than that. Hunters are a cut above the masses. Maybe that's what hunting is all about — bringing out the best in people, not the beast.—HLG

Letters

A SUGGESTION FOR THE CALENDAR

Your new calendar is superb! However, nothing is so good that it can't be improved. To me the sunrise/sunset table is awkward. How about a small map of Virginia overlain by vertical lines giving the time difference in minutes? This would be easier to use than the correction table in this year's calendar. Also, here's a suggestion of far less value. Instead of using fishes year-round to indicate the best times for hunting and fishing, why not use game animals sometimes instead? Your calendar is great as it is and I'll buy several next year, but why not make it better?

Warren M. McLaughlin
Vienna

Thanks for the suggestions. Your idea for the sunrise/sunset table does sound easier to use and we will give it consideration when putting together next year's calendar.—Asst. Editor

NEED FOR RESPECT

On a trip last year through Brush Mountain Roaring Fork in the Jefferson National Forest shortly after deer season, I was shocked at what I saw. The area is approximately ten miles and is some of the most beautiful mountain country found in our state. At no time could you stop without seeing a beer can, beer cartons, even garbage bags left at a campsite. Every forestry and Game Commission sign had either been completely pulled down or was riddled with bullet holes. Has the day arrived that the litterer, the sign shooter, the den tree cutter and the like outnumber the responsible, law-abiding sportsmen?

Eli B. Jones
Tazewell

You have just outlined the targets for OPERATION RESPECT. We are hopeful that sportsmen do outnumber the rest. By supporting this program, we can help ensure that they do.—Asst. Editor

SNAKE FAN

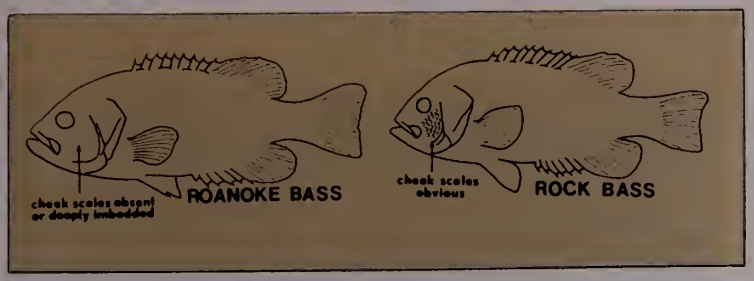
I am happy to see you run so many articles on snakes. There is no question that rumors and lack of knowledge have given snakes a bad reputation. I have been traveling the woods of Virginia for 40 years and have never had a bad experience with a snake. My favorite snake, the black snake, has kept the rodent population in check in my apple orchard in Fauquier County and I am grateful. I do have one question. As a child I heard a hissing noise and saw a snake in a rose bush. The children called it a "blowing viper." Have you ever heard of another name for this snake?

Richard Salzer
Annandale

The snake you describe is the hognose, also called puff adder. It hisses loudly, raises and flattens its neck in the manner of a cobra and strikes viciously without opening its mouth. If this fails, it will roll over and play dead. All in all, it is one of our most harmless snakes.—Editor

The Last Stand of the Roanoke Bass

By Harold J. Petrimoulx
and Robert E. Jenkins



Although it has not been placed on the endangered list, the Roanoke bass is the only native freshwater gamefish in danger of disappearing from Virginia waters. *Ambloplites cavifrons* is a poorly known native southern Virginia member of the sunfish and black bass family, Centrarchidae. It closely resembles, and generally is confused with,

Frequently confused with the rock bass, this freshwater game fish is in danger of disappearing from Virginia waters.

the more common and widely distributed rock bass, *Ambloplites ruspestris*, the closest relative of the Roanoke bass in Virginia. Both species have a large eye with a bright red iris, reflected by the often applied name "redeye." But one of the important characteristics of the Roanoke bass as a gamefish is the relatively large size this species can attain.

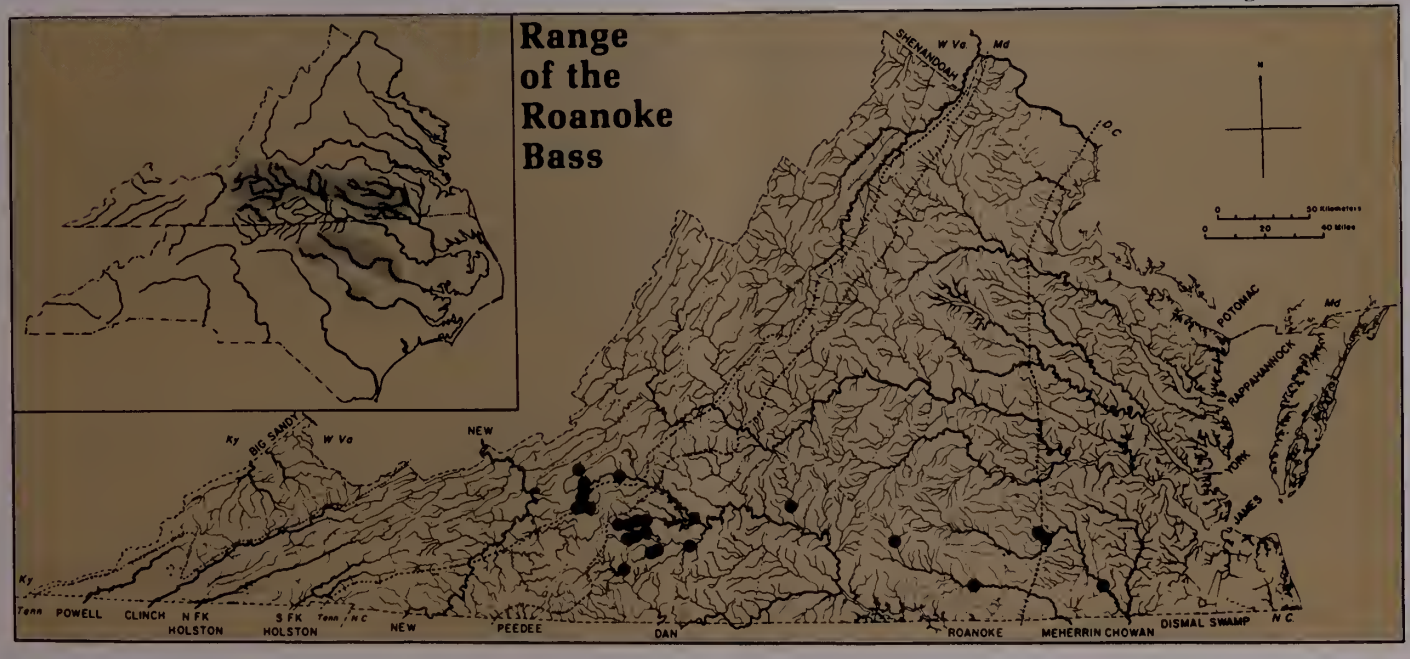
The Roanoke bass has a very limited range. It is found only in the Roanoke-Chowan drainage in Virginia and the Tar and Neuse drainages in North Carolina. The Roanoke bass is found in the cleaner, medium to large, Piedmont streams, but also extends into certain montane and upper Coastal Plain streams. It commonly inhabits the swifter sections of pools and is often found over firm substrate near boulders, logs and other shelter. The diet includes insects and crustaceans when small, and the adults also feed on crayfish and minnows.

Unlike the Roanoke bass, the rock bass has an extensive distribution, extending from Manitoba to Quebec and south through the Appalachians and into the Ozarks. It inhabits rocky streams and lakes. In Virginia, the rock bass is native to the Holston, Clinch, and Powell Rivers of the Tennessee drainage and the Big Sandy River of the Ohio basin. The northern rock bass has also been widely transplanted by state and federal hatcheries (and occasionally by local sportsmen) into the New River drainage and several Atlantic slope drainages including the Potomac-Shenandoah, Rappahannock, James, and the upper Roanoke. In the latter it has partially displaced the Roanoke bass. The rock bass is typically a montane species preferring higher stream gradients than the Roanoke bass.

The Virginia Commission of Game and Inland Fisheries gives citation awards for any "rock bass" one pound or larger. Due to difficulties of positive identification, both the rock bass and the Roanoke bass are placed into this one category. However, based largely on our knowledge of the different distributions of the two species, it is usually possible to determine the species for which anglers had actually been awarded a citation. Analysis of the citation records received by the Commission from 1964 through 1977 revealed some interesting facts.

The Roanoke bass accounted for approximately 64% of the citation-size "rock bass" reported. Nearly half of all fish reported were taken from the Nottoway River, which is known to contain only the Roanoke bass. Three of the citation fish believed to be Roanoke bass were over two pounds, while none of the citation-size northern rock bass reached two pounds. On the average the latter were found to be two ounces smaller than the average Roanoke bass. These findings concur with recent studies which have found the Roanoke bass to attain larger size than the northern rock bass and its other close relatives. It is a panfish of trophy proportions, indeed.

It is especially interesting to note that a 2 pound, 5 ounce trophy "rock bass" caught in 1976 by Virnett Robertson from the Nottoway River, was actually larger than the current claimed world record Roanoke bass of 2 pounds, 4½ ounces, taken from the Tar River in North Carolina during 1978. This



Nottoway fish was almost certainly a Roanoke bass. The new Virginia record "rock bass," of 2 pounds, 7 ounces angled by E.P. Spain from a "private pond" during 1978, may also be a Roanoke bass. These largest fish ranged in the area of 14 to 16 inches total length. However, because the specific identity of these Virginia specimens was not verified, Virginia cannot claim the official world record Roanoke bass. It may be worthwhile in the future for Virginia anglers to closely photograph and distinguish the Roanoke bass from the rock bass, to have their fish checked by a biologist, and to compare their catch with the North Carolina record. We have old reports of Roanoke bass reaching about 4 pounds.

As part of a current study of this species for the Virginia Commission of Game and Inland Fisheries, the authors have attempted to contact virtually all of the anglers who have taken citation-size Roanoke bass through 1977.

Most of the anglers who responded to the survey were unaware that the species they had taken was actually a Roanoke bass. While most of the anglers had taken several Roanoke bass before, most were fishing for another species or any species in general at the time they caught their citation fish. The Roanoke bass received high marks for fighting quality and as table fare, with half of the anglers regarding the species as superior in both categories. When asked about management strategies for the species, response in favor of additional stocking and otherwise promoting greater abundance was almost unanimous. It is apparent that the Roanoke bass is a highly regarded gamefish species by the handful of anglers who are familiar with it.

The small native range of this species combined with other factors create an uncertain future for the Roanoke bass. Since it was first described from a single specimen taken in the upper Roanoke River drainage in 1867, its numbers have been gradually declining. Some of its Roanoke drainage populations have already been lost. The population in the upper Roanoke, from Roanoke upstream, was stressed both by pollution and the establishment of the rock bass in that area until its near extirpation in the 1950's. Siltation and turbidity are major factors adverse to Roanoke bass.

The Roanoke bass probably extended downstream below Roanoke in the Roanoke-Staunton River, although no verified records exist. Impoundment of this section of the Roanoke River created five major reservoirs between 1952 and 1964, and the Roanoke bass seems to be generally intolerant of impoundment conditions. Philpott Reservoir on Smith River also reduced its range.

The Roanoke bass has been successfully cultured since 1968 in two hatcheries in North Carolina. In 1976 some of the North Carolina hatchery stock was transferred to ponds at the Buller Hatchery near Marion, Virginia. The Roanoke bass has successfully reproduced in each of these hatcheries.

However, it appears that stocking lakes and ponds may not be a viable method for ensuring the survival of this species. Roanoke bass were transplanted into a farm pond, and three lakes on the Piedmont and upper Coastal Plain in North Carolina, which already held established gamefish populations, from 1969-1970. Subsequent sampling found no evidence of natural reproduction.

Stocking of streams to re-establish the Roanoke bass in parts of its native range and to introduce it into other drainages may also prove generally unsuccessful. It would seem that many of the unoccupied streams of the upper and middle Roanoke drainage would presently support native populations if the habitat were suitable. Attempts by the North Carolina Wildlife Resources Commission to establish Roanoke bass in three Piedmont streams did not yield naturally reproducing populations. The Virginia Commission stocked 900 Roanoke bass in the Pigg River near Rocky Mount in 1977, hoping to restock this section after a 1975 chemical spill created a severe fish kill in that area. The success of this stocking is presently unknown. Recently, at the Virginia Endangered Species Symposium held in Blacksburg in May 1978, the Roanoke bass was placed under the conservation status of Special Concern.

Though increased publicity may result in greater angler harvest, it is our hopeful intent that this article will help heighten awareness and knowledge of this species, and provide further impetus for maintaining and enhancing stream quality. The latter concern is of special importance as many areas of this species' native streams are currently being considered for impoundment or modification.

Perhaps the need for concern can best be conveyed in the words of Mr. Edward Decker of Richmond, who has taken over one hundred Roanoke bass (most of which were released), and may well be as familiar with this species as any angler in the state. Mr. Decker responded to our angling survey: "This is a very special species of fish meriting in every respect special treatment. Its extinction would, to a sportsman, be a tragedy."

We would like to ask concerned sportsmen who fish in the Roanoke-Chowan drainage for their support in this matter. Those anglers who fish these rivers and believe they may have caught a Roanoke bass can be of great value to our study. We are interested in obtaining information concerning angler opinion of this species and other data. We would like to ask these anglers to share their knowledge of this specis by contacting us so that we may send them a survey form. You may write or call: Dr. Robert Jenkins or H. J. Petrimoulx, Department of Biology, Virginia Commonwealth University, 816 Park Avenue, Richmond, Virginia 23284, Phone 804-257-1562.

Speaking of Deer

by Edwin L. Pearce

Once heard, you might never forget the unique sounds made by the deer family.

The noise was like nothing I'd ever heard. It was earth-shattering, and propelled me to a sitting position in my sleeping bag just before dawn. The sound started with a bellow, soon changed to a shrill scream or whistle, and finished with a series of loud grunts. At intervals it was repeated.

The mountains provided a sounding board for the weird bugle. It built up additional force as it echoed and reverberated, filling me with a sense of fear and wonder. It was in the Oregon high country, the mountains of Wallowaw County; the time, November 1943. I was listening for the first time to the never-to-be-forgotten mating call of the bull elk.

We're familiar with the voices of domesticated animals — the dog's bark, the cat's hisses and yowls, the hog's grunt, the horse's whinny and the cow's moo. But of the wildlife presently roaming our country, deer probably have the most extensive vocabulary.

THE ELK. In addition to the previously mentioned awe-inspiring bugle, the bull elk when in rut, will bellow at the approach of a rival male. In searching for cows, he is noisy and loud, and is rightly called America's noisiest deer. When the bulls' paths cross, they fight and their grunts are deep and continuous each time they clash.

One of the guides recounted that, on a previous elk hunt, he had heard a bull elk make a strange sound: a perpetual "snick, snick, snick" as he licked his nostrils while closing in on a cow.

All elk snort and grunt; the cow can also bugle but hers is a poor imitation of the bull's roar. The snort of a cow sounds more like a bark and she uses it as a warning. She also neighs as a greeting to other elk, or to gather the herd, which she heads in the absence of a bull. The calves squeal when alarmed or in play.

THE WHITE-TAILED DEER. Many of our hunters and outdoorsmen are most familiar with the white-tailed deer, which range from Canada southward in all our states and number about 10 million. The whitetail fawn bleats like a lamb, the doe gives out a calf-like bawl, and both the mature buck and doe emit a whistling snort when curious or alarmed.

The bawl and snort are their principal means of communication. If a hunter approaches upwind, or

the doe spots him, a single doe will give a series of these snorts. The doe also talks to her fawn in grunts as a reprimand and whickers when feeling affectionate. The fawn, when alarmed, uses a plaintive cry.

The buck also whinnies, whistles, coughs and wheezes. When fighting, he lets out a series of loud grunts. It was the grunting of an amorous buck in Georgia hot on the trail of a doe which alerted me when I was 16, and it led to my first whitetail kill.

THE MULE AND BLACKTAIL DEER. There are about 7 million mule and blacktail deer in our country. Their does and fawns both bawl and blat, but such sounds are rather subdued. The bucks snort, whinny and whistle when alarmed and also cough and grunt during the mating season, much like the whitetail.

THE EUROPEAN RED DEER (*Rotwild*). After the last world war, I was stationed in Germany while in the army and encountered the European red deer. It isn't quite as large as our elk, but the red deer stag is a magnificent animal, often weighs over 500 pounds, and is an extremely desirable and highly-prized trophy.

During the fall rutting season, I was again awed by the full, deep and throaty roar of a stag. But the lovelorn bellow of a wild red deer stag differs from that of an elk in that it starts with coughs, grunts and low rumblings — a sort of tuning up for the final roar — instead of the bellow. I also detected in the stag's mating call a clearly defined tone similar to that of a musical chord. There were four distinct notes, with the first three being rather quick, the last one holding for as long as the first three. The final whistling and roar aren't as loud as that of the elk, but it carries for miles and makes the hair on your neck bristle.

The red deer hind neither bugles nor roars; she employs a series of deep, gruff barks when alarmed. The fawn calls its mother with a child-like cry.

THE EUROPEAN ROE DEER (*Rehwild*). I also found in Germany a smaller member of the deer family, the roe deer, sometimes called reh. Its weight rarely exceeds 100 pounds and it travels in large groups. Both the buck and the doe are very talkative and bark frequently.

On a fall evening near Darmstadt where the roe deer are plentiful, I heard a buck bark. Within a few minutes it turned into a chorus, the woods ringing with their "bow, wow." It was impressive and triggered the rutting season.

Their bark sounds like that of a big collie dog. The does call the bucks with somewhat of a calf-like note. After two years of hunting them, I could readily distinguish between the voices of the sexes. Near Kassal, I once heard a buck grunting and grumbling like a rooting hog as he chased a doe.

THE KOREAN SIKA DEER. After leaving Germany while in the army, I was shuttled to Korea. There I also found deer. They were extremely small, even smaller than the European roe deer, dressing out about 35 pounds and standing less than 24 inches at the shoulder. A subspecies of the Chinese water deer, they're a truly beautiful tiny animal in their russet brown winter coat. It's said that all our deer originally came over the land mass from Asia, but it's difficult to believe our whitetail and mule deer are related to this tiny Sika deer. The scarcity of food and the harsh winters in Korea no doubt restrict their growth.

Its distinguishing characteristics include protruding tusks on either side of the mouth, utilized in digging the roots of the low bushes found all over Korea. There are few trees in Korea and browse for deer is scarce.

It has a peculiar wind-sucking bark, so peculiar that when I jumped the first one while pheasant hunting in low bushes, I was really alarmed. There were also tigers in Korea, and I wasn't sure what noises they made. When I heard this wind-sucking sound, I yelled a warning to my hunting partner. As the tiny Sika buck emerged with two smaller does, my partner bagged the buck with a slug and I breathed a sigh of relief. Later, we became accustomed to this very distinctive bark and realized it was used as an alarm cry.

DEER DO SPEAK. I don't doubt that deer speak to one another. The calling of the young for their mothers, and the various roars, barks, grunts, groans, bellows, shrieks and whistles of the mature deer are proof enough for me.

To the human ear, the barks, grunts and groans and other language are sometimes alarming and often misunderstood. It's difficult to associate them with the harmless-appearing deer.

The elk and the European red deer roar, whistle and bellow, and the European roe deer bark, as do many other species. You can hear them speaking in

White-tailed Deer

zoos and in other animal attractions, but their language in confinement has very little of the individuality of their feral relatives. Many confined deer were born in captivity and their natural wild characteristics, including their vocabulary, are blunted and limited.

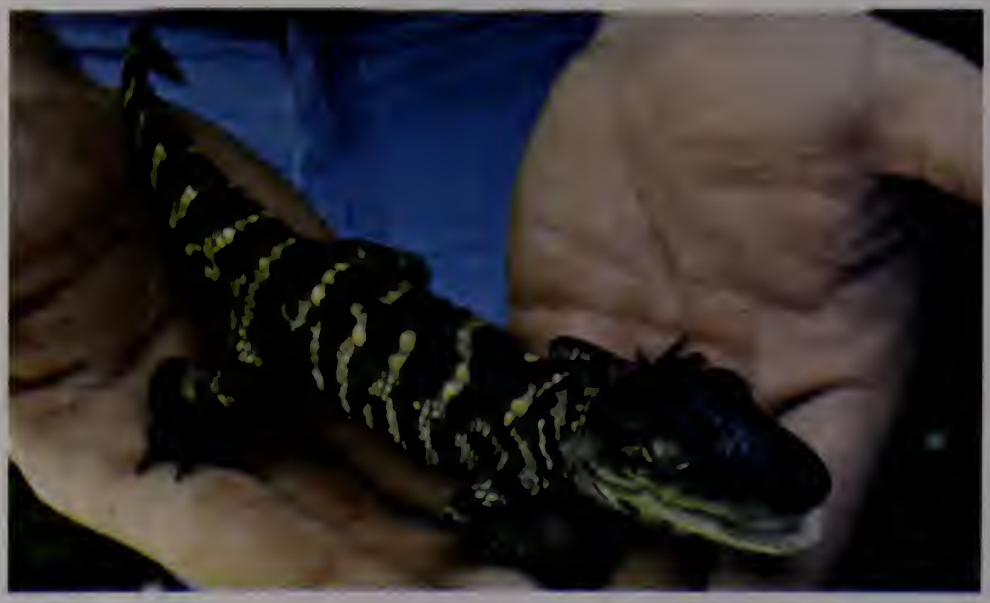
On your next trip to the woods and fields, listen for the language of the deer. When you hear them speak, it'll add greatly to your enjoyment and understanding of our great American outdoors and its inhabitants.

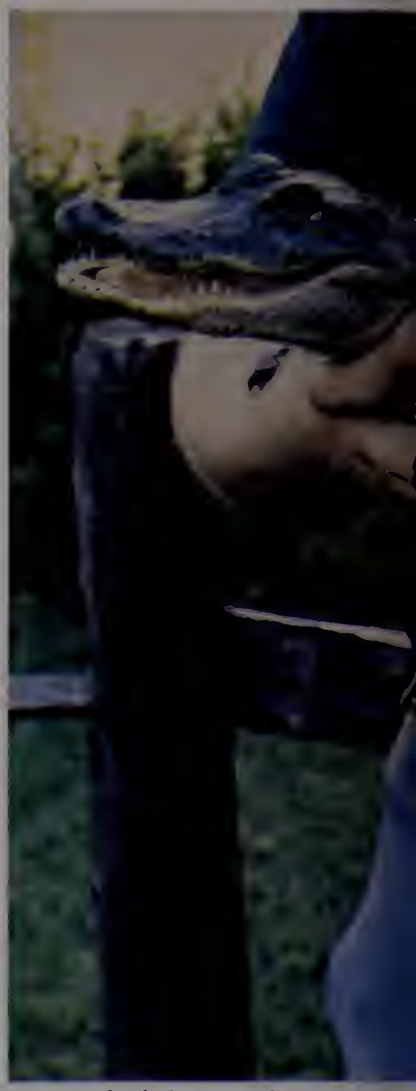
Stag-red deer (right) and roe deer (both photos below) have unique ways of communicating with each other.

Virginia Gators?

By Jimmi Bonavita

Debate continues to grow as to the presence of these bizarre creatures in Virginia.





The rumors have been around for just about as long as anyone has lived in Tidewater. Gators in the Dismal Swamp? A breeding population? Or maybe just the discarded pets that might have gotten a little too big for comfort?

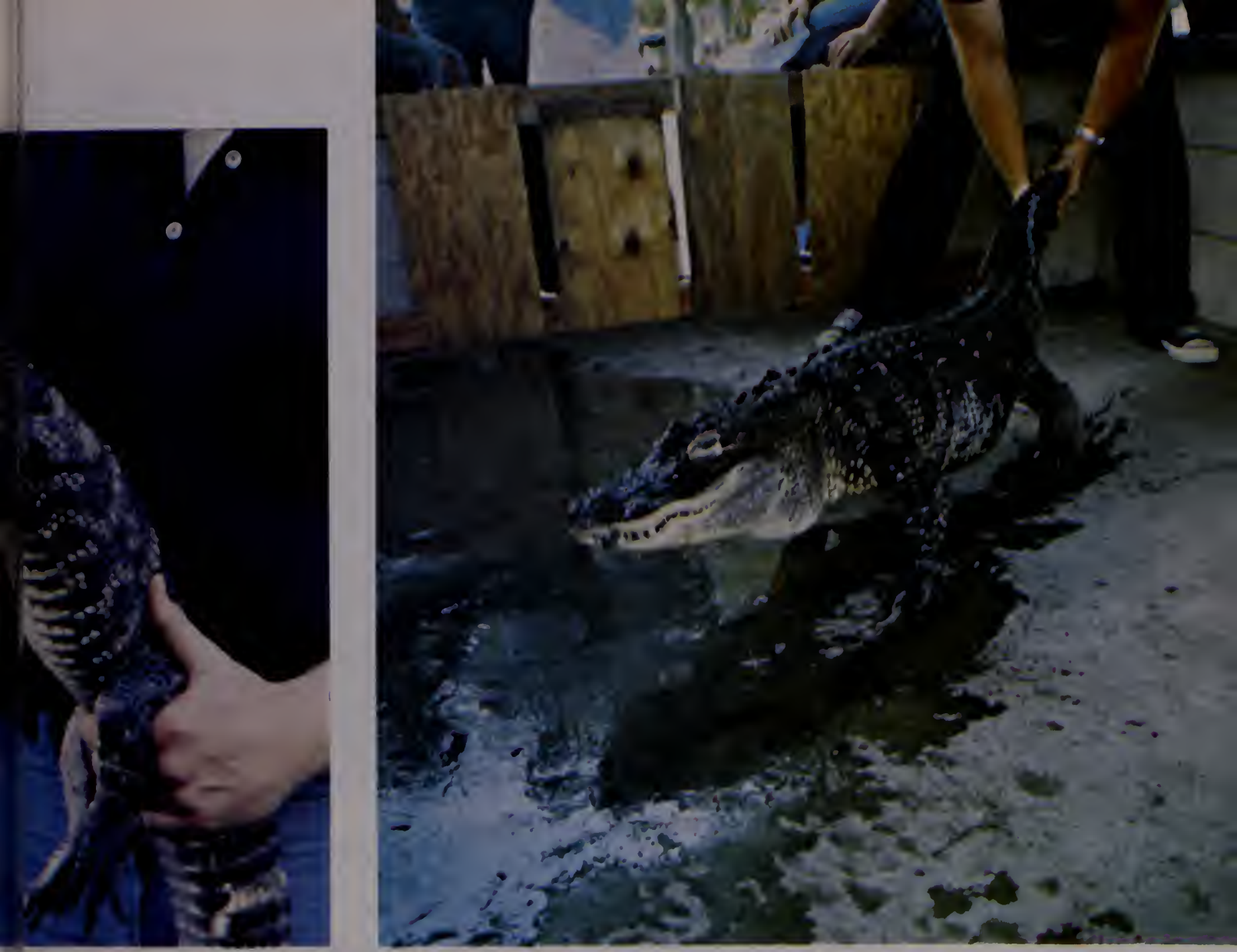
Through the years, gators or caimans have been found in the waters of southeastern Virginia, in such diverse places as a lake near Norfolk's Botannical Gardens, a river in Newport News and the more predictable location of the Dismal Swamp. The key to the mystery is that most are of an extremely small size — for gators, that is — leading those who know to believe that they are escaped or liberated pets and not the vanguard of a current breeding population in the area. In states where crocodiles and alligators are common, it is a fact of swamp life that adults — measuring the normal six or seven feet — are seen most frequently. Juveniles are rarely sighted by humans. This fact seems to prove the "pet theory."

In 1964 a child caught a small caiman in Norfolk's Lake Whitehurst. It caused great fear among local fishermen but for no real reason. The caiman, had it been allowed a longer stay in the lake, would have died in cold weather. Alligators, crocodiles and caimans are from a tropical climate, requiring the torrid water temperatures.

The age of nuclear energy may shed new light on this angle, however. In 1978 an alligator was sighted in Louisa County's Lake Anna, the lake atached to VEPCO's nuclear reactor located at that sight. The gator was reported to be between five and six feet. However, according to Game Commission fish biologist Charlie Sledd, only one person ever reported the sighting. An extensive search was undertaken, with no results. The sighting remains a mystery.

An interesting theory brought to light at this time was that the elevated temperatures due to Lake Anna's status as a nuclear reactor cooling pond might enable the alligator to live. Not so, according to Sledd. Temperatures would never reach the level needed to ensure survival.

In December of 1976 a three-foot crocodile was found in the Dismal Swamp near the North Carolina border. After it was turned over to the Depart-



Gators grow from the small one several months after hatching (Far right) to this larger juvenile, to the seven-foot specimen pictured above. *Photo by Eugene Woolridge*

ment of the Interior for relocation, it was discovered that the reptile had been illegally transported and released in the swamp. When the crocodile was found it was weak, semi-comotose and nearly blind. His fate in the northern Dismal Swamp was not a happy one, as it is for most of these creatures carelessly released in Virginia waters.

According to many crocodile and alligator experts, these reptiles were never abundant in southeastern Virginia. However, according to historical evidence, it is probable that they existed in the Dismal Swamp in George Washington's day when he made his six visits into the interior of the swamp.

The northernmost limit for the alligator appears to be Albemarle Sound in North Carolina and even in this area, the sighting of one is rare.

The sighting of alligators in Virginia is rare enough to make us certain that the only population is one composed of pets whose owners can no longer control them. The future for the released gators is bleak.

Interesting Facts About Gators

Alligators' teeth (numbered as high as 80 when young) are replaced when broken or worn, though not indefinitely. Old adults may be nearly toothless.

Alligators (as well as other crocodilians) do not use their tails as weapons. Their powerful jaws are used to subdue prey and to confront enemies. The tail is used mainly as a counter-balance on land and as a rudder in the water. It may slap about during thrashing, but delivers no aimed blow. Experienced alligator handlers show no concern for the reptile's tail but give great respect to the jaws.

There is no external difference between male and female alligators except size. Female alligators cease growing at 6-7 feet while males may get as large as 14 or 15 feet. The only other differences are internal.

Crocodilians have been in existence continually, relatively unchanged, for over 200 million years or since the first appearance of dinosaurs.

Stretch Your Season

By making use of hunting preserves, both you and your dog can stay in top form.

By Bob Gooch

I knew I was off target when I pressed the trigger, but at the bark of my light scatter gun the bird bit the dust and scooted under a nearby bush.

I had winged the fast escaping bobwhite with the edge of my pattern. I hadn't planned it that way. Still the setup was ideal for what I had in mind.

With me on that hunt on Johnny Markey's South Anna Shooting Preserve in Hanover County were my steady old German short-haired pointer, Grenny and my eager young English setter, Beau.

This was mostly Beau's hunt.

Johnny called Beau and pushed his nose toward the leafy bush and the little setter froze in a classic point. Johnny talked quietly to him, stroked his back, and made a few adjustments in his style before backing off. By then Grenny had moved up to honor Beau perfectly.

Both dogs were as steady as a James River boulder, so I shot a couple of pictures before moving in for an easy shot.

Commercial shooting preserves make that kind of action possible — and add months to the bird hunter's season.

Beau was 10 months old that late winter afternoon. While I had hunted him as much as possible during the regular quail season that had ended a month earlier, it had been a mediocre season at the best. There was no scarcity of birds, but many days had been lost to snow and ice. Long periods of inactivity had dulled my shooting and prevented my dogs from reaching peak hunting form.

Still, the young pup was showing promise as the season wound down. He had located and pointed a couple of single birds, and one memorable afternoon in Buckingham County Beau had found a big covey on his own. But when the edgy birds moved, Beau, eager and puppylike, made a false move and the covey exploded before I could get within range.

With all of that promise just beginning to materialize, I hated to have him go into the long off-season. That was why I called Johnny Markey and

made an appointment to hunt his place.

This is just one of the opportunities offered the bird hunter by Virginia's long preserve season that runs from the first of October through March — six months of hunting, and three beyond the regular season.

While the extended season — the additional months of hunting — is a major attraction, there are other.

One is the chance to work a young dog in good cover where there is an abundance of game relatively easy to locate, and birds that hold better for a point than do the wild ones. Today's bobwhite is a bird that lives by its wits. It is edgy and jumpy and often flushes wild. The young dog just beginning to hunt is no match for such game.

The preserve birds give him a chance to get into plenty of game, to wear off the rough edges, and to polish his hunting style.

Above all, young dogs need to have birds shot over them. Nothing inspires a pup like having its master down a bird it points, and the more often this happens the more enthusiastic the young dog will become. Commercial shooting preserves provide this opportunity.

Because shooting preserve birds hold well, a dog may develop a tendency to move too closely. Then, when it switches to wild birds, it may unintentionally flush a few coveys, but a smart dog will quickly adjust to the differences in the habits of the game.

The shooting preserve season helps the hunter also, giving him a chance to sharpen his shooting in preparation for the regular season, and to hold this edge well into the off-season. Many hunters rely upon skeet and trap to stay sharp. This helps, but there is no substitute for actual hunting

Older dogs also gain from the early start. Dogs, like hunters, need action to keep their interest high. Those October sessions on a commercial shooting preserve will bring a dog to its hunting peak quickly, and if the regular season is reasonably productive, it will hold through the year.

The bobwhite quail is the choice of most Old Dominion bird hunters. This is the bird found on just about all Virginia commercial shooting preserves, but there is other game on many of them. I have hunted pheasants, chukars, and even mallard ducks on commercial preserves.

The pheasant hunting is particularly good. The gaudy ringneck never domesticates completely, and once it is released it quickly reverts to the wild. I have hunted ringnecks in some of America's top pheasant country — South Dakota, North Dakota, and Kansas. If there is any difference between those wild plains birds and the shooting preserve ringnecks here in the Old Dominion, I have not been able to detect it.

The same is true of chukars. The nearest wild birds are on the other side of the continent in such western states as Idaho and Utah.

Shooting preserve operators use two approaches in establishing fees.

The older and possibly most popular method is a flat fee for a guaranteed limit of eight birds, and then a flat amount per bird for all above that. Under the other method the operator charges a flat fee for releasing a certain number of birds. This method is growing because of the skyrocketing cost of buying and feeding birds.

The hunter assumes more risk under the latter method, but the reasonably good shot who owns good retrieving dogs should come out all right. If he misses a bird he normally gets a chance for another flush and a second shot.

Preserve operators usually give their clients a choice between the two methods.

Most preserve operators are in the business because they enjoy bird hunting, bird hunters, and bird dogs. They supplement their income by training dogs, and in some instances by raising and selling dogs. In addition to rearing or buying birds they devote much time and money to planting wildlife patches and working on adequate cover for the released birds.

The shooting preserve business is risky. During the past two seasons prolonged periods of snow have knocked out weeks of hunting. Disease can riddle the ranks of penned birds.

Most preserve operators could make greater profits and assume less risk in other kinds of business, but fortunately, for the modern bird hunter, many stick with it and are successful.

Currently the following commercial shooting preserves operate in the Old Dominion:

Back Creek Shooting Preserve, Mack Largen, Manager, Route 3, Box 88cc, Hillsville, Pulaski County Virginia 24343. Quail and pheasant.

Breezeway Kennels & Shooting Preserve, William E. Andes, Jr., Manager, Box 126, Remington, Culpeper County, Virginia 22734. Quail.

Cedar Run Hunting Preserve, F. C. Day, Manager, Route 1, Box 42, Catlett, Fauquier County, Virginia 22019. Quail and pheasant.

Indiantown Shooting Preserve, Lon S. Marks, Manager, Route 1, Box 156, Capron, Southampton County, Virginia 23829. Pheasant.

King Kennels, Juanita R. Christensen, Manager, P.O. Box 563, Rixeyville, Culpeper County, Virginia 22737. Quail.

Merrimac Farm Hunting Preserve, Dean N. McDowell, Manager, 14710 Deepwood Lane, Nokesville, Prince william County, Virginia 22123. Quail and pheasant.

Poplar Plains Shooting Preserve, Otis W. Douglas, Manager, Route 1, Box 452, Hague, Westmoreland County, Virginia 22469. Quail and pheasant.

Port Isobel Island Area and Watts Island, G. R. Klinefelter, Manager, Box 587, Accomack County, Ephrata, Pennsylvania 17522. Pheasant.

South Anna Shooting Preserve, Johnny Markey, Manager, Route 1, Box 27, Montpelier, Hanover County, Virginia 23192. Quail.

As a compliment to our regular bird hunting seasons, the commercial shooting preserves have much to offer, but nothing better than the pure joy of hunting where there is always an abundance of game.

Outlaw Gunner

Chincoteague's Tom Reed is part of waterfowl history in the Commonwealth.

BY CURTIS J. BADGER

"It was like a fox in a hen house," says Tom Reed. "Everybody thinks the fox is a villain, but the fox doesn't think he's doing anything wrong. He's just trying to get his supper."

Reed, a 78-year-old resident of Chincoteague, was once one of the most notoriously successful market gunners in Virginia. In a career which spanned nearly half a century, Tom Reed killed tens of thousands of waterfowl, many by such ignoble means as traps and night shooting. In his particular line of work, Reed was the best. Not only was he a skillful hunter, but he was equally adroit at staying a step or two ahead of the law, a necessary quality for any degree of longevity in the business.

In a time in which waterfowl are becoming increasingly precious, it is easy to make ogres of men like Tom Reed, but Tom's degree of villainy depends upon your point of view. Are you a farmer or a fox?

This is not meant to condone the hideous practice of market gunning, nor is it meant to glorify a profession bent on the decimation of waterfowl. This is the story of a man whose life and livelihood have been tied to the Virginia saltmarsh for most of this century, and it is a story of what was once a part of Virginia life and is now a part of Virginia history.

Tom Reed is an unlikely villain. He is short and wiry and despite his 78 years he looks fit enough to row a gunning boat three miles across an icy bay and spend the morning with the black ducks and scaup. His skin is tanned and his clear blue eyes give away his quick sense of humor. I remember three years ago when Tom kept a local civic club in stitches for 45 minutes with accounts of his numerous confrontations with game wardens. Tom, speaking in his twangy island accent, told of hollowed decoys, punt guns, and methods of trapping ducks without getting caught. It was like listening to Jesse James give advice on robbing trains.

Tom Reed has made his living from the marsh since he was about ten years old. Until 1960 he was an admitted outlaw, a fox in the hen house. Nineteen years ago Tom decided to mend his ways, to take a "regular job." Since 1960 he has worked for the Walter Reed Army Hospital, guiding scientists through nearby swamps and trapping and tagging marsh animals. Blood samples are taken from the animals and the scientists check them for antibodies. The goal is to isolate viruses which are transmitted by the abundant mosquitoes which frequent the swamp in the summer. So far, Tom says proudly, scientists have found five kinds of viruses.

For a man who made a career of being an outlaw, Tom is a sensitive, honest man who writes poems celebrating the marsh and its wildlife. He is a man who left school at age 11 to help put food on the

table, yet he knows more about the saltmarsh than many people with impressive academic credentials.

His career as a market hunter was something that happened naturally and unavoidably. In the early 1900's Chincoteague was an isolated island where people depended on the wealth of the water for their livings. The island was accessible only by boat; there was no booming tourist trade to stimulate the island economy as there is now.

"Back then everybody on Chincoteague made their living the same way. We harvested clams, crabs and fish in the summer and oysters and ducks in the winter. Youngsters got their first guns when they were about ten, and they helped get food for the family. Working on the water and hunting was a trade to us. It was a skill passed down from fathers and grandfathers, it wasn't something you could learn in school or from reading a book. As we grew up, some of us became better fisherman, some better crabbers, and some better hunters. I happened to be one of the better hunters."

Tom says he started hunting at age ten to put food on the table. In a short time he became sufficiently skilled that he not only was bringing home enough to feed his parents and the six brothers and sisters in the house, but he usually had enough left to sell to the local buyer, who shipped the ducks to markets in Washington, Baltimore, and New York. By the time he was a teenager Tom had decided what he wanted to do with his life. He wanted to become a professional hunter.

Tom knew the Chincoteague saltmarsh intimately, and he loved exploring the tidal creeks that spiraled through the rich, wide marshes. He hunted from the time the waterfowl came down in the fall until they left in the spring, and he made enough money to support himself. In the summer he harvested shellfish, but hunting was his love and he yearned for the first crisp mornings of fall when the blacks, scaup and redheads would be making their southern migrations. By then the traps would have been built, the decoys freshly painted, and the gunning boat camouflaged with a thick layer of cordgrass.

"I never heard of a game law or a game warden until I was 17. (The Migratory Bird Act was passed in 1918.) Until then we could kill as many as we wanted. There were no seasons, we could trap ducks, sell them, light them at night, use live decoys. There was no law against it. It was a way of life for us, and when the law stepped in, most of us became outlaw hunters. It was all we knew how to do and we had to make a living."

Tom and the other outlaw hunters made a good living. Blacks and redheads brought a dollar a pair, scaup 75 cents, and brant $1.25. Buyers would pack the ducks in barrels or boxes and ship them to northern cities where restaurants featured roast wild duck at a premium price.

For Tom and the other outlaw gunners, bagging ducks was only half the job, they also had to avoid the game warden. Admittedly, Tom had an advantage. There were few wardens available to cover many square miles of marsh, and not many of the officers knew the local marsh as well as Tom Reed.

Tom also had a few tricks. "I had 20 hollowed out goose decoys, and when I killed my limit I would stuff the ducks in the decoys. That way I could get my limit plus twenty more."

Tom also had a duck trapping trick that kept him out of the courtroom. "When most hunters took their ducks out of the traps they would kill them, but I'd put them in a bag alive. If I saw a game warden coming I'd just empty the bag and all the evidence would fly away."

"I also used to use a bag tied to a long line on the keel, I'd put the dead ducks and a rock in the bag and throw it overboard if I saw the game warden coming. I'd leave and he'd go where I had been and look around for the bag, but he couldn't find it because I was pulling it along about 100 yards behind the boat."

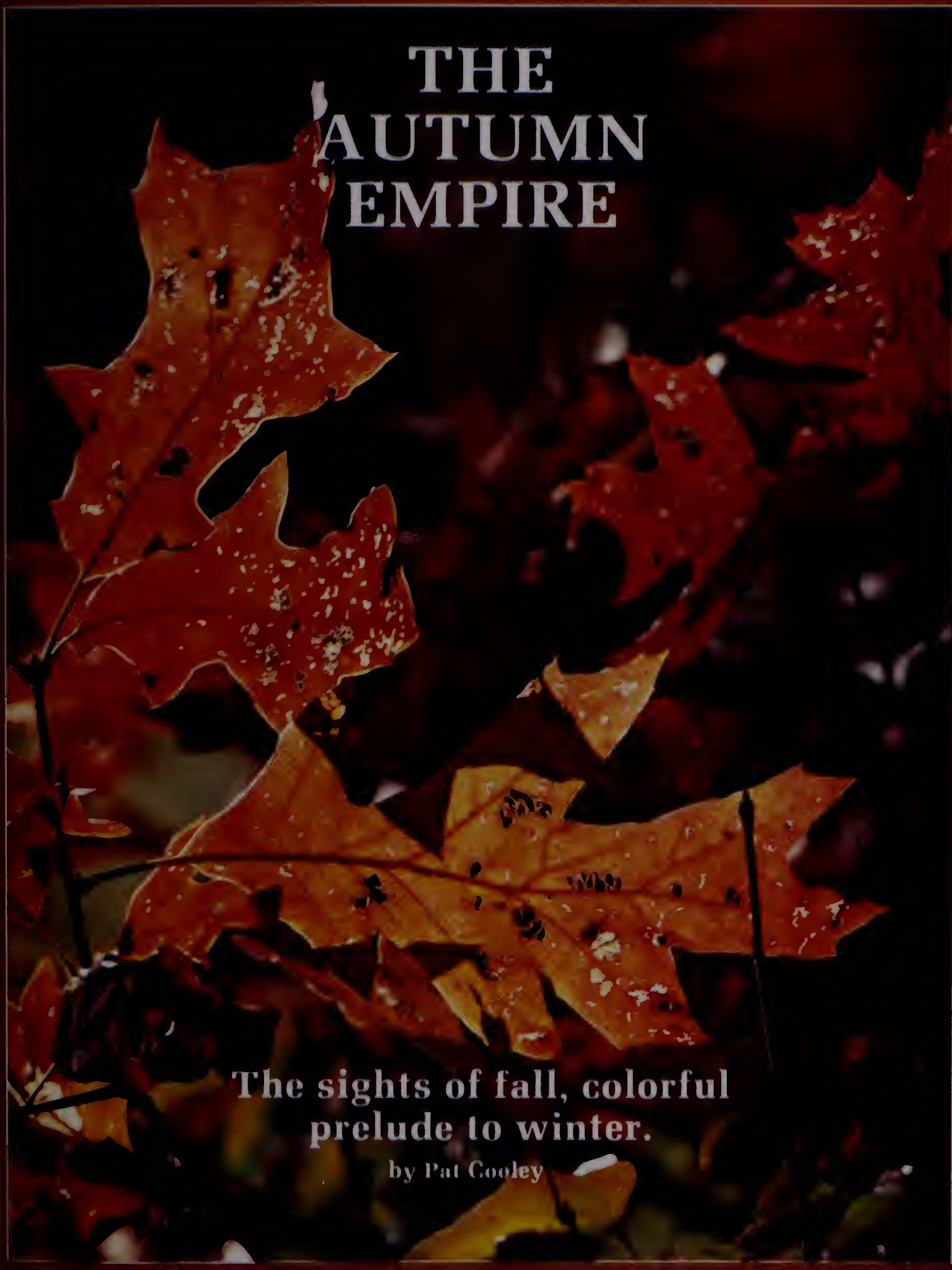
In his career as an outlaw, Tom had to go to court only twice. "I went before the same judge two times, seven years apart, but I never was convicted because they didn't have enough evidence."

Tom took one brief fling at going straight. In 1931 live decoys had been outlawed, so he took his collection of 1,000 wild ducks to Florida and put on a trained duck show. "I raised the ducks in a brooder house and I was the only mother they knew. They'd follow me around just like they would an old hen. I'd put them out at one end of the pond and I'd take off running and all the ducks would fly right behind me."

"Then I built a 30 foot ladder with platforms on the way up. I taught the ducks to land on the platforms. I climbed on top and I had one duck that would always land on my head."

Today, at age 78, Tom Reed is reflective. In his comfortable house on Chincoteague, overlooking the marsh that he loves, he writes poems about nature, about God, about growing old. In a corner of his basement is a collection of old decoys, including a hollow Canada goose block complete with a mounted black duck. Once or twice a month he gets the old decoys out, but instead of going to work in the marsh they are headed for a meeting of the local Kiwanis Club or church group where Tom is the featured speaker.

He still has a flair for show business. Like an aging gunfighter in a wild west show, Tom tells the younger folks what it was like in the old days, when black ducks and redheads flew in flocks so thick they blocked out the sunlight, when hunters sold their wares on the main street of Chincoteague, when life was simpler and the market gunner was an honored man.



THE AUTUMN EMPIRE

The sights of fall, colorful prelude to winter.

by Pat Cooley

Each leaf in autumn seems to be individually painted.

Autumn's intense sensations cannot be found at any other time of year.

Autumn's transient residents (below) can often see nostalgic sights such as corn shocks (right).

Photo by Spike Knuth

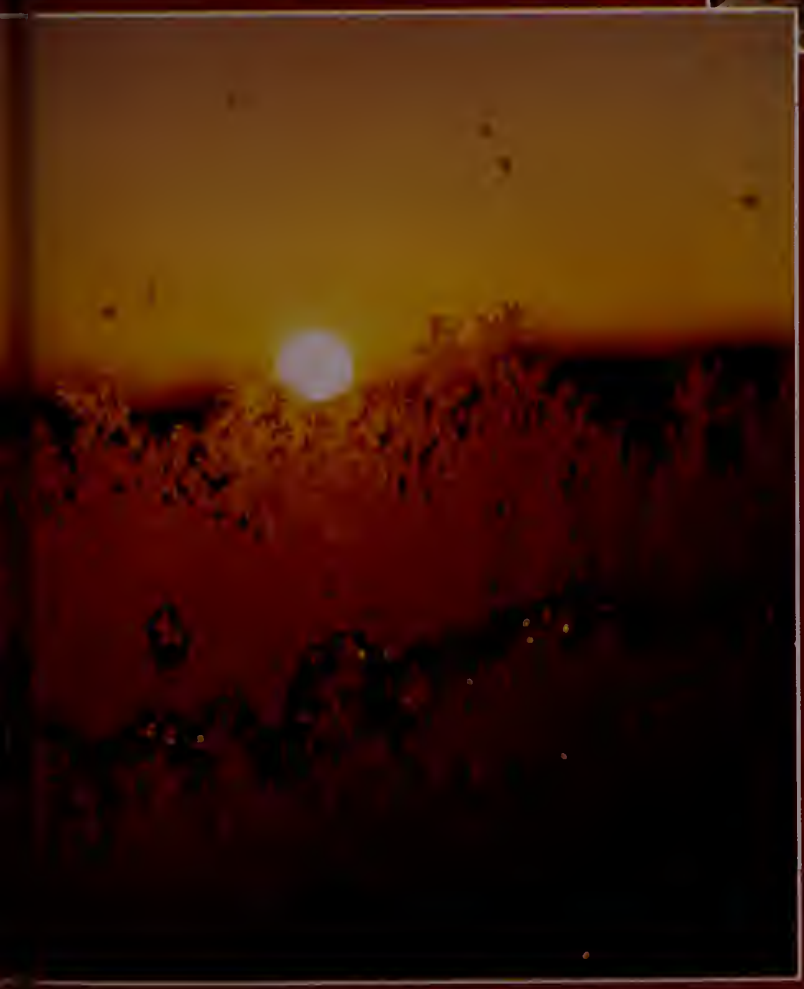
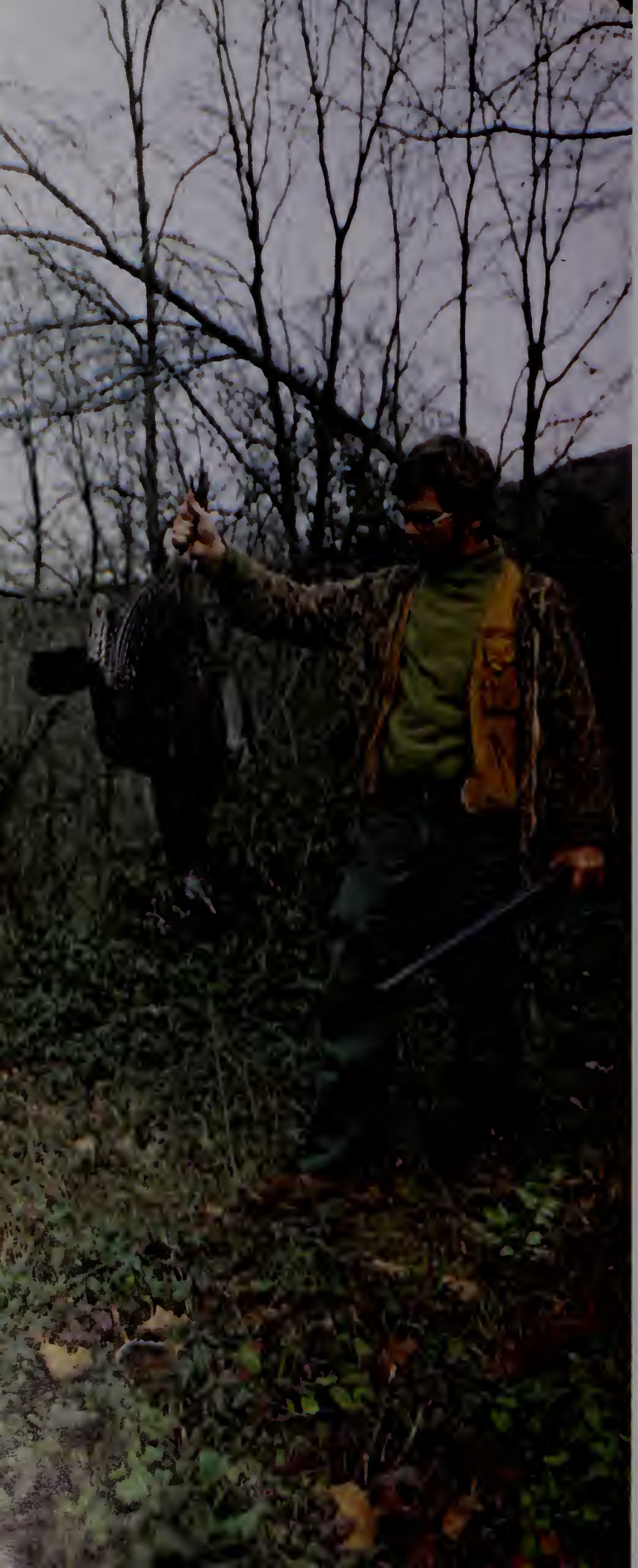


Photo by Leon Kesteloo

Crystals of frost on a window pane (left) and the brightly contrasting sumac and yellow poplar are part of autumn's brilliant colors.



Turkey On the Wing

Could this be the most challenging way to bag a turkey?

By Gerald Almy

It was not a classic turkey hunt.

No deceptive calling; no artfully-camouflaged face; no elaborately-constructed blind. It was simply a turkey on the wing — for better or for worse.

There are those who will question the legitimacy of plucking a turkey from the air with a shotgun. Most truly fanatical turkey hunters would shudder at the mere thought of shooting a bird that was not called.

But for a hunter like myself, whose heart lies in wingshooting, taking a turkey in flight comes as a rare and treasured event. Just as it is more satisfying to bag a grouse than a quail because the partridge is wilier and larger than the bobwhite, so the dropping of a turkey on the wing represents perhaps the ultimate wingshooting experience.

And there is another reason why I took the big bird in flight — practicality. Like so many hunters who are not bitten by the purist form of turkey fanaticism, these large birds represent such tasty dinners that we will take them in any legal and sporting manner possible when seasons are open. After being frustrated for far too many years by the wily upland game animals, I was ready to harvest my turkey in most any fashion. When the 12-pound hen buckled and fell from the sky with a thud, she was welcomed like manna from Heaven.

It was a cold December day. The mercury read a frigid 8 degrees that morning, and I stayed snugly in the heated Shenandoah Valley cabin until late in the afternoon, adding the final touches to a book manuscript. But by 3 in the afternoon, the intermittent spates of sunshine streaking through the clouds had warmed the air to 26 degrees.

I could resist the siren-call of the Massanutten Mountains no longer. Doning Army fatigues, wool shirt, sweater, and tattered camouflage jacket, I

stuffed a dozen No. 6 magnum shells into my vest and grabbed the Winchester 24 from the wooden rack.

While trekking up the hill to the first grey hollow, I ruminated on the trying times I'd had over the years pursuing these big birds. True, I am primarily a grouse, woodcock, and quail hunter. But I did seek the masssive fowl at least a few days each year — in the spring when the dogwood blossoms spread an aura of rebirth through the still-grey forest and again in fall, as winter slowly stretched its icy fingers over the Appalachians

All in vain.

It mattered not that for the last year I had lived in the rich turkey country of northwestern Virginia and that I had hunted the same region for six years prior to that. It mattered not that in this area turkey droppings are as common as quail roosts, and scratchings can be seen virtually any day you take the time to search for them.

It made no difference that I had seen hundreds of turkeys in my time — because they always presented themselves at the most inopportune times. When out on a spring hike and no gun was within miles, the gobblers would flaunt themselves boldly; when armed with fly rod and popping bugs to tempt river smallmouths, enormous birds would poke their heads up like children caught in the cookie jar, abandon their snacking on blueberries and bustle noisily into the brush. When grouse hunting with my open-choked gun loaded with low brass No. 8's, turkeys would soar up into the air at 35 yards, flapping their expansive wings in a display of majesty. Gritting my teeth, I would hold fire while the giant fowl sailed down the mountains. And on deer hunts, there are often turkeys probing the hollows, scratching in the valleys, calling from distant knolls.

But most trying of all — and most delightful — were the 12 big black birds that fed with impunity in my front yard for a full 45 minutes while I stood gaping from the open doorway The season was two weeks away when the turkeys showed up. One big hen that would easily have scaled 16 pounds wandered within 25 feet of the cabin door as she and her companions fed on the abundant crop of late-season crickets stridulating in the green October grass. True, I snapped a roll of film of the turkeys —but you can't eat pictures.

So with Thanksgiving passed turkeyless and the Christmas table decked with store bought ham, chances of scoring in the final few days of open season seemed slim. And just then a ray of hope entered the picture. My neighbor, who was nursing a broken ankle and couldn't climb the mountains, shot an 18 pound gobbler 50 yards from his doorstep.

The turkeys were using the lower third of the mountain regularly, as they are wont to do when the cold of winter intensifies. This much was clear as I moved to the second hollow after flushing two grouse and stirring up a cottontail. The brown-green turkey dropping with frost-white edging were present everywhere as I hiked along the white pines bordering the hardwood forest. Scratchings, too, were visible in the leaf litter — chaotic claw-scrapings where black soil stood out against the pale forest cover of amber leaves.

At the third knoll I slowed my pace, sensing game ahead. I heard nothing. I saw nothing. But some primordial instinct instilled sudden caution in my pace. It was the type of vague premonition I had heeded often — and one that had accounted for the capture of much fish and game in seasons past.

It was a wise decision. Within minutes the rustling leaves of stirring game wafted on the soft December breeze. A deer, I thought immediately, trying to squelch any premature turkey fever. Taking no chances, though, I walked rapidly through the sumac, deadfalls, and tall oaks, seeking the source of the sound before it had fled.

And they were there! Five birds I saw first, irridescent-feathered fowl standing warily in the golden shafts of winter sunlight. The birds were alarmed, but content to walk rapidly away from the green-garbed intruder.

Turkey fever infected me to the core of my bones. Deer fever is bad, but if you're sitting on a stand, immobile, your body can control the rampaging heart to a certain degree. But turkeys need flushing, and my throbbing chest was not going to deter such action.

At a pace as fast as I'd run since the 50-yard dash in high school, I chased madly after the running birds in a desperate attempt to get them airborne and scattered over the mountainside. Six turkeys soared off in a cluster to the left, streaking through the tall grey timber with massive wingbeats. To the right, another group flapped away. One bird took a perch in a tree 100 yards off; several flew directly up the sheer mountainside.

But one remained, trying to sneak silently up the steep terrain. My gun emptied in efforts to scatter the birds, I loaded with trembling fingers, nearly choking on the cold air piercing lungs still weak from a recent virus.

Rushing madly at her, the final bird of the flock launched herself into the air at 40 yards. Snapping far too hastily on the front trigger, I missed cleanly. The huge mountain bird was fully aloft now and angled fatally to the left. I compensated, pulling hard past the outstretched neck. Like a huge grouse crumpling on the wing, the turkey broke with the sharp crack of the gun and tumbled to the earth. Thrashing, it struggled to regain equilibrium for the briefest of agonizing moments. Clumsily, I crammed another shell into the chamber and anchored the black bird firmly to the turf.

I collapsed in a heap on the frozen earth. Lungs ached as I gasped for breath, gazing in a daze at the vanquished quarry, regal in her cloak of russet, sable, and brown — proud in life, proud in death.

For countless minutes I sat, wrapped in the joy of the ultimate wingshooting experience. I gathered up the spent fowl and walked back to the cabin.

Personalities

By Francis N. Satterlee

Randall Uhl

Pennsylvania Sportsman Extraordinarie

Normally this page is reserved for vignettes about Virginians. However, recent events involving a certain gentleman from the Keystone State have made it imperative that his story be told here and now.

Photo by Pennsylvania Game Commission

A Venango County Pennsylvania hunter, portrayed in a poor light in a television production four years ago, is one of the first winners of the Pennsylvania Game Commission's coveted SPORT Ethics Award. Randall Uhl, a rural sportsman from near Franklin, Pennsylvania who "took on" a national television network in a Federal Court suit, and won, received the SPORT award on Saturday, September 22, 1979 at the Venango County Federated Sportsmen's Clubs, landowners and farmers appreciation dinner at Franklin, Pa. The event was held in conjunction with the annual observance of National Hunting and Fishing Day.

In the CBS television program "Guns of Autumn" presented in 1975, Uhl was shown hunting geese at the Game Commission's Pymatuning Waterfowl Area in Crawford County. In the show, Uhl was depicted as shooting a goose while it was on the ground.

Ethical hunters for generations have scorned such practices, and Uhl did no such thing. Actually, the goose which Uhl shot was flying at the time Uhl fired.

The hunter was highly offended by the program, and filed suit against the network. The jury decided in his favor.

During the federal district court trial held recently in Erie, Pa., two Game Commission personnel testified on Uhl's behalf. Conservation Officer Supervisor Fred Servey, who witnessed the actual event, and Game Commissioner Robert Sutherland pointed out to the court that "ground swatting" of game birds is highly unethical.

Every year, approximately 50,000 youngsters complete a hunter education course administered by the Game Commission. In this course, principles of ethical hunting and sportsmanship are taught, and the shooting of game birds on the ground is presented as a definite "no-no."

Hundreds of thousands of Pennsylvanians joined millions of American sportsmen and sportswomen in denouncing the scenes and the thrust of "Guns of Autumn." The Game Commission refused a CBS request to cooperate in a follow-up production. The National Wildlife Federation labeled the anti-hunting show a "shamefully slanted propaganda film." Lawsuits were filed.

The outcome of the Uhl case is believed to be one of the first decided in the courts.

The Pennsylvania Game Commission's new SPORT Ethics Award is to honor those who contribute significantly to law enforcement, hunter-landowner relations or wildlife conservation.

SPORT stands for Sportsmen Policing Our Ranks Together, and is a program designed by the Game Commission to weed out unethical and slob hunters from the ranks of the hunting fraternity.

Editor's Note: CBS Television subsequently appealed the verdict. However, Federal Judge Gerald C. Weber upheld his original decision and denied a reversal.—FNS

Growing Up Outdoors

By Sandy Coleman

The Gray Squirrel

ILLUSTRATION BY DICK BERNARD

What animal can be seen in city parks, as well as the deep forest? What animal can prove to be a worthy adversary for sportsmen, but also allow city dwellers to get a look at him from a very close vantage point? The gray squirrel fits this description aptly.

The gray squirrel is the common squirrel in most of the parks in our cities and has long been one of the favorite game animals of Virginia. When not disturbed too often by man, gray squirrels become very bold. They will feed at close range and will come very close, indeed, to their human observers.

Contrary to what many people believe, gray squirrels do not hibernate during Virginia's cold winters. They might, however, stay in their nest during much of this period.

Gray squirrels are active only during the day. They store up food to be used during the times that they choose to stay in their nests and usually can be found with their home built in a tree. Strictly tree-loving, they cannot often be found away from a good supply of hardwoods.

The gray squirrel builds a bulky nest of leaves and twigs in the fork of a limb, or, as is usually the case in winter, they can build a nest in the hollow of a tree. Gray squirrels often have two litters during the year, the first in March or April and the second in the fall. The size of the families vary, they can range from four to six young at any one time.

Gray squirrels have a tawny appearance from a distance, but their white bellies help distinguish them from the rest of the squirrel family. This squirrel has gray on the upper parts with white markings on the tail. This also is a clue to identify them from a distance.

The squirrel can most often be found around oak and hickory trees, preferring those that have been around for some time.

One of the best things about the gray squirrel is that he provides a touch of the wild for city dwellers — those that seldom see wildlife in its natural habitat.

It Appears to Me

By Curly

. . . . A PERSON OUGHT TO HAVE ONE

Our own State Corporation Commission, according to some information which has become available recently, has produced guides for consumers which are pertinent to homeowners insurance and for the purchase of auto insurance, as well. Information about coverage and rates are outlined in the two pamphlets which are free from SCC's Bureau of Insurance, Post Office Box # 1157, Richmond, Va. 23209.

Somewhere out there one of our readers, or perhaps a few, are interested in wine and with that may also be interested in travel. With that in mind, the Italian Wine Promotion Center has produced a free booklet which is a gold mine of information and, understandably, focused on wines from Italy. I did not know it, but it turns out that Italy, with the 18 districts within the country, produces more wine than any other country in the world. Should you be at all interested, write to Italian Wine Promotion Center, 1 World Trade Center, New York, N.Y. 10048, requesting "Est! Est! Est!"

No doubt many of you have become very interested in the possibilities presented by Solar Energy. That being the case, you just might want to contact the National Solar Heating and Cooling Information Center which is a federally financed service operated by the Franklin Research Center in Philadelphia. This organization runs a "hot line" with answers for consumers and others who are interested in having their questions answered about solar energy. Publications about solar energy, which are available, lists of architects, engineers familiar with solar designs, manufacturers, installers and the like are available at the other end of a toll free phone number which is open during normal business hours: call 800 523-2929

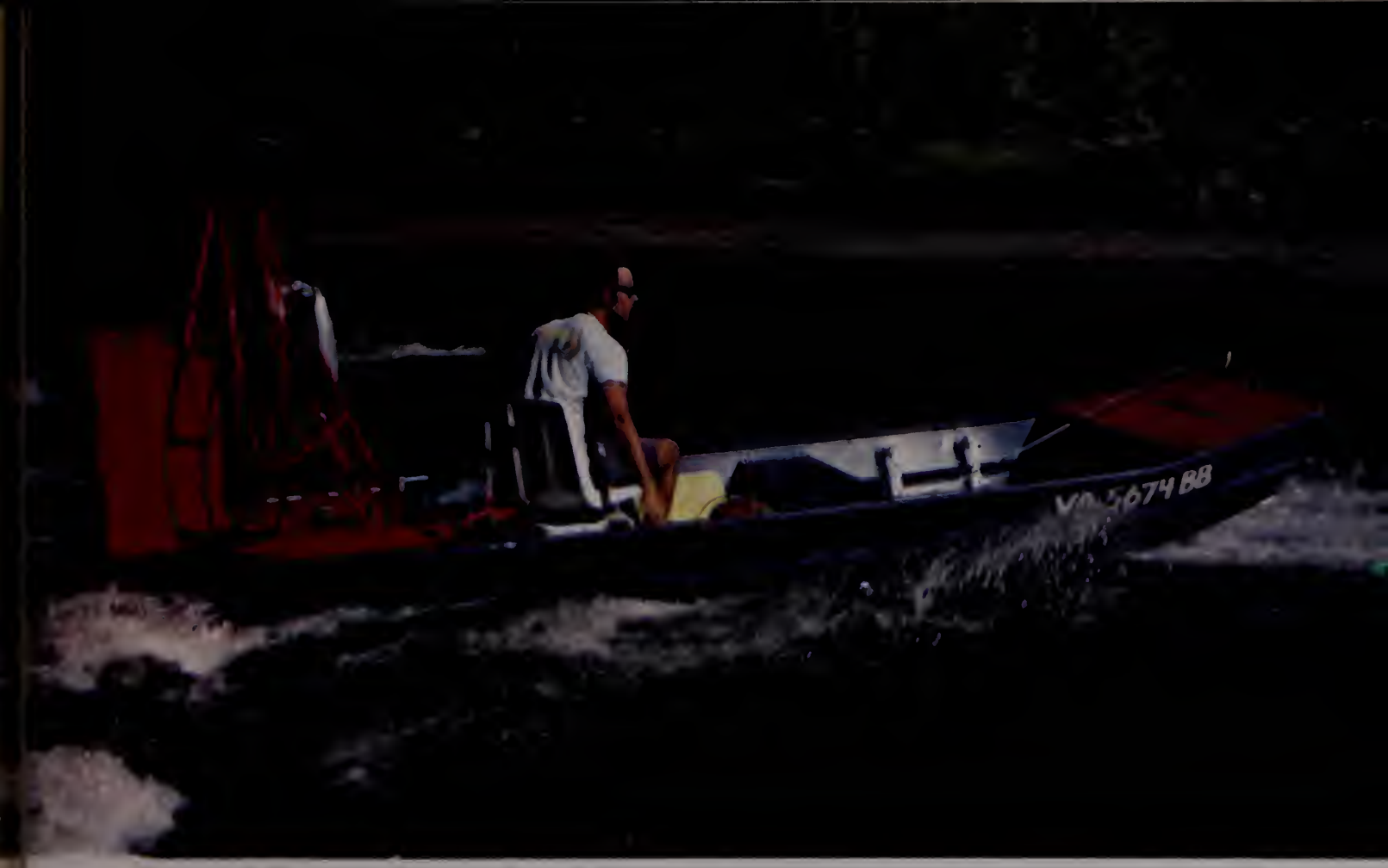
Although summer is history and winter is almost upon us, it is possible that those of you that own and operate recreation vehicles are about to head out to places where the weather is a bit kinder. If so, you might keep in mind that your friends at the Recreation Vehicle Industry Association have been doing some research on your behalf. . . specially since the fuel situation isn't all that good. RVIA personnel claim that your RV can also be a CV (Conservation Vehicle) if you will practice some common sense. For example while you are somewhere sort of semi-permanent for a few days, reduce the number of short trips you make to purchase small items. Walk to the nearest store or use your bike or Moped. Another thought, use the campground's electrical outlets instead of your onboard generator. . it's much more fuel efficient. If you are interested, just drop a line requesting their booklet and enclose a LONG envelope with your name and address on it to: G. V. Turkle, RVIA, Publications Division, 14650 Lee Road, Chantilly, Virginia 22021.

. . . . FOR YOUR BOOKSHELF

Some time ago, as a matter of fact in 1935, the United States Fish and Wildlife Service published a booklet about bird migration which was written by Frederick C. Lincoln. The booklet proved to be very popular and in 1950 was revised. Now, as the result of some carefully planned data collection, the resultant summarization has made possible a sparkling 1979 edition which is illustrated by no less than that well-known artist who is synonomous with the USFWS, Bob Hines. If you want to be good to yourself, or better yet have some folks that would appreciate a beautiful surprise on Christmas (which is getting close), lay out the $4.25 Circular No. 16, Migration of Birds, which is available from the U.S. Government Printing Office, North Capitol and H Strests, Washington D. C. 20402. It covers virtually all aspects of migration from the history and scope to the routes taken by different species and why they take the routes that they do enroute to their wintering grounds.

. . . . AND THEN

Teddy Roosevelt said it and it sure sets right with me. "It is not the critic who counts, nor the man who points out how the strong man stumbled, or where the doer of deeds could have done better. The credit belongs to the man who is actually in the arena; whose face is mared by dust and sweat and blood; who strives valiantly; who errs and comes short again and again; who knows great enthusiasms, the great devotions, and spends himself in a worthy cause; who, at the best, knows in the end the triumph of high achievement and who, at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat."



Airboat on the James

A Way to Navigate Rocky and Shallow Rivers

By Bob Gooch

"It enables me to squeeze short trips into my tight schedule," said Wayne Guenther, explaining the reason for his choice of the unique craft for boating on Virginia's fast James River.

The James, a swift, boulder-studded stream of rapids, riffles, and broken water, is one of Virginia's premier smallmouth bass waters, but even in the flat water, treacherous boulders lurking just beneath the surface are a threat to the conventional outboard motor. Paint marks on the rocks tell the story. Shear pins go fast, and badly battered propellers are the trademark of a James River outboard motor.

Over the years James River boaters have devised all kinds of guards or shields, hoping to protect their motors from the rocks. A particularly popular innovation has been the business end of a pitchfork welded to the gear housing so that its curved prongs ride in front of the propeller providing fair protection from the rocks.

But even a boat powered by a pitchfork-protected outboard has trouble climbing the fast, shallow, boulder-studded rapids. This was the problem Guenther hoped to lick with his new craft -- an airboat of his own design.

But why ascend the rapids? The big James is easily accessible throughout its length.

The Virginia Commission of Game and Inland Fisheries has established excellent access points and launching ramps at convenient points all along the river. But a float trip between them consumes a good half day at the least, and even that leaves little time for fishing.

Wayne Guenther's busy schedule as a school administrator leaves little time for half day or full day fishing trips.

A boat with the power above the water seemed to be the answer. A propeller above the water would not bang against the rocks, dig into the sand, or get snarled with underwater vegetation. An airboat such as those made famous in the Florida Everglades seemed to fill the bill.

"The Florida airboats are too powerful," said Guenther. "I don't need that kind of power or speed."

Speed was not essential for the short runs up-

stream for a more leisurely float fishing trip back to an access point. In fact, a fast boat could be dangerous in the shallow, rock-strewn river.

With his needs analyzed, Guenther began a search for a boat and a motor to power it.

He would need a heavy boat, one that could take the pounding against the rocks and an occasional collision with a submerged boulder. He would also need a shallow-draft boat, one that could take the rapids in stride, and skim over the sandy shallows and the grass-infested waters where the feeding bass often lurk.

The typical river john boat would meet the shallow-draft requirements, but it would have to be of sturdy metal and well constructed. A nearby livery boat operator had such a boat, a surplus one Guenther was able to purchase at a bargain price.

Vibration could be a problem, and to minimize it Guenther used sturdy 2 x 4's as mounts, bolting them to the stern and the rear seat and bracing them with angle irons. This meant giving up the rear seat, but he solved this by mounting a swivel seat just forward of the rear seat. He operates the motor from there using a conventional steering handle and a throttle control grip.

The boat is a big, 14-footer, roomy and comfortable to fish from, but even so it draws just a couple of inches of water — if the load is well distributed.

The choice of a motor was more crucial, but he settle on a 25 horsepower, 2 cycle, high rev Rockwell motor designed for airboats and snowmobiles, and an airplane type propeller. Mounted on the 2 x 4's, it is a sturdy, efficient power plant.

A pair of rudders or tail fins ride behind the motor, and the wind from the propeller hitting the fins gives the boat direction. The fins are operated by the steering handle.

The airboat's greatest value is its ability to ascend the shallow, rock-strewn rapids the angler in a conventional boat would not dare tackle. And it does so with ease, gliding rapidly over the roostertails and dodging in and out of the exposed rocks with little resistance from the current. While the boat will ascend just about any rapids the James River has to offer, Guenther chooses his routes carefully in order to protect the boat from hidden boulders.

The boat's capabilities in the rapids permit Wayne Guenther to utilize those free hours to ascend the river from any convenient launching ramp, and then fish slowly back — or, if he prefers, he can float downstream from an access point and then run back upstream at the end of his fishing trip. This is the advantage he was referring to in the opening paragraph.

But there are other advantages the airboat has over conventional outboard boats. They become apparent as one uses the boat.

One is its maneuverability in shallow water.

"I need just a couple of inches of water," said Guenther, "and I can actually move over wet sand or grass."

Virginia and much of the East was hit by the worst drought in many years during the summer of 1977, and the James river water level sank to a near record low. This did not hinder Wayne Guenther, however. He was able to maneuver the airboat through the shallowest water and over expansive grassy shoals to reach prime fishing water. Such water is beyond the reach of an angler in a conventional outboard-powered boat — for obvious reasons.

Guenther has not tried his new boat in the marshes yet, but he was already looking forward to the fall and the waterfowl season. "I should have no trouble getting back into the marshes," he said.

Stump-filled shallows where the big bass hang out is another kind of water the airboat can put the angler in without risk of propeller damage or sheared pins.

If he knows the water well, Wayne Guenther has no trouble racing downstream in fast water, but often he cuts the motor, grabs a paddle and lets the current provide the power. But the situation is little different in an outboard-powered boat. Most outboarders tilt their motors and use paddles to navigate the fast James River water.

Guenther recommends a pair of canoe paddles as standard equipment in an airboat.

Because the airboat is steered by the air currents from the propeller hitting the rudders, good control requires a fair rate of speed — greater speed than is required for control of an outboard. This is particularly evident when descending the rapids. It is rarely a problem on flat water.

Vibration from the propeller is greater in an airboat than it is in most outboard-powered boats. Sturdy construction of the mount helps keep it to a minimum, but will not eliminate it completely. A sturdy boat such as Guenther's heavy duty john boat also minimizes the vibration. It is rarely objectionable.

Probably the major drawback of the airboat is the noise. This could be a problem in the waterfowl marshes because of the disturbance of the birds. Probably the best approach is to make the run into the marshes during a slack period such as midafternoon — and await the late shooting.

There is some contention that the propeller of the airboat creates a hazard, but Wayne Guenther's is well shielded from the occupants of the boat. Frequent inspections for looseness or signs of wear should prevent any serious mishaps.

Wayne Guenther tows his airboat behind the family sedan. A trailer is the best way to obtain mobility, and about the only way except for loading the rig into the body of a pickup truck. This requires muscle as the motor is of necessity permanently mounted on the boat and its weight plus that of the heavy duty john boat add up. Cartopping the rig is out of the question.

Sure, the airboat has its limitations, but the ability to slip a comfortable john boat into a fast bass river as the sun slants toward the west, to make a fast run a couple of miles upstream, and to fish leisurely back as dusk gathers on the singing stream, more than offsets all of them.

It is the most enchanting and productive time to be on a bass river, and Wayne Guenther can enjoy it after a full day in his school system — thanks to his airboat.

Gourmet Game

November's Quail and Grouse

By Joan Cone

Quail is a nutritious and tasty meal.

When the early colonists arrived in Virginia, they discovered both the excellent taste of quail and ruffed grouse. Quail were so popular in the Old Dominion that their Latin name became, *Colinus virginianus*.

While quail are found statewide, grouse inhabit the mountainous, wooded areas of our state. Grouse are much larger than quail and weigh an average of 1¼ pounds, while quail are about 6 ounces. Although both these upland birds make excellent table fare, grouse have a more delicate flavor than quail and are not as dry.

Preparation of these birds for good eating begins in the field. Dress them out as soon as possible and then pluck the birds. Don't waste time plucking the wings, but cut them off with your kitchen shears. If you skin quail and grouse, you remove fat which lies under the skin. This results in dried-out birds which will not brown properly. These small birds should be split up the back with kitchen shears and cleaned out completely. Removing lungs and dried blood improves the taste.

Quail and grouse can be sauteed quickly, making them easy to cook at home, over an open fire or within an RV, tent or cabin.

SAUTEED QUAIL AND GROUSE
4 to 8 quail or 4 grouse breasts, split
Salt
½ cup flour
¼ cup butter
¼ cup white or rose table wine

Add salt to flour and dust birds lightly. Melt butter in heavy skillet. Brown birds on skin side first, then turn, cook on bone side and turn again. Reduce heat and continue cooking for 20 to 30 minutes or until birds are tender. Remove birds from skillet, add wine to drippings, bring to a boil and serve over birds. Allow 2 quail or 1 grouse breast per serving.

Quail can be spit-cooked over an open fire, but do need the protection of an outer covering during most of the cooking. Otherwise, these small, delicate birds will become hard, dried-out and tasteless. I've found that cabbage leaves are the easiest and best to use for grilling.

SPITTED QUAIL
Quail, left whole
Melted butter to which favorite herb or herbs have been added
Cabbage leaf for each bird
String
Salt

Brush outside of birds lightly with melted, herbed butter. Place one or two quail on a skewer. Then wrap each bird with a cabbage leaf and tie it on well with a piece of string. Place skewers 3 to 5 inches from source of heat and turn frequently. Although cooking time will vary, quail will take between 12 and 15 minutes. Then unwrap the birds and brush with melted butter several times while gently browning birds 3 to 5 minutes. Salt birds after cooking. These quail will still be moist while having an "outdoor flavor."

Spitted quail (below) and barbequed quail (right) are delicious ways to enjoy this game bird

SAVORY QUAIL IN SKILLET
6 quail, split down back
2 tablespoons butter
⅛ cup sherry
½ cup soy sauce
1 can (8-ounces) tomato sauce
½ cup sugar

Melt butter in skillet. Place split quail in skillet, breast up. Cook quail at medium to medium high heat for 10 minutes with lid on skillet. Combine remaining ingredients in small saucepan and bring to a boil stirring until sugar dissolves. Pour this sauce over quail and simmer, covered, for 15 minutes.

Note: There is no need to salt and pepper as soy sauce contains adequate seasoning.

Because the microwave oven cooks so fast, small game birds cannot dry out. Although the following recipe is for quail, you can use it with grouse by allowing more cooking time.

MICROWAVE BARBECUED QUAIL
1 cup canned whole cranberry sauce
¼ cup catsup
4 teaspoons cornstarch
1 tablespoon brown sugar
2 tablespoons lemon juice
1 tablespoon prepared mustard
1 tablespoon Worchestershire sauce
1 tablespoon vinegar
4 whole quail, dressed
Salt

In an 8-inch square baking dish, combine all ingredients except quail and salt. Place birds skin side down in dish. Turn birds over to coat with sauce. Sprinkle with salt and cover. Cook on HIGH for 10 minutes or until birds test tender with fork. After first 5 minutes of cooking, turn dish and baste birds. When done, stir sauce and spoon some over birds and then pass rest.

Grouse are perfect for stuffing and serving individually. This easy recipe is a gourmet's delight!

STUFFED GROUSE
4 grouse, left whole
Salt
1 box prepared long grain wild rice mix
1 can (8½-ounces) water chestnuts, cut into small pieces
Melted butter
Spice Parisienne or other favorite spice
1 cup white wine, Rhine or Sauterne

Salt cavities of birds. Prepare wild rice mix according to directions on box. Then add your cut-up water chestnuts and blend into rice. Stuff cavities of birds with rice mixture and truss birds. Brush entire bird with melted butter and sprinkle very lightly with spice. Place each bird on a piece of heavy duty aluminum foil and bring up edges all around. Pour ¼ cup wine into each foil package. Bring edges of foil together and seal to make a tight package. Place birds in a shallow roasting pan in a preheated 350° F. oven. Roast for 1 hour or until tender. Remove birds from oven and turn oven up to 425°F. Open foil and return birds to oven allowing them to brown. Serve grouse with the natural juices from the foil packages. Allow 1 bird per person.

Outdoor Notebook

Why are Deer Tails White?

Photo by Leonard Lee Rue

For most people the tail is about all of a deer that is usually seen. Perhaps that is why they are called the Virginia white-tailed deer.

But why is the tail white?

There's no support for a white tail as existing for predator protection. It could only make an animal more visible and more easily seen and followed. It makes them more easily seen by hunters. Even when deer are resting, there is an easily seen white edge, again no good excuse. Males as well as females have white rear ends so it has no apparent survival value in mating display. Why then? Throughout biology there have been reasonable answers developed to such *why* questions. There is probably a reasonable basis, a fundamental principle at work. We think there is. It is explained in great detail in Aaron Moen's book *Wildlife Ecology* (Freeman Co., San Francisco, Calif.), but the answer for the deer tail seems best as follows:

A deer, like other wildlife, is an energy getter and an energy consumer. Most of the physical world is oriented against wildlife. Energy loss, dispersion, and randomness —these are the real physical world. They are summarized in the second law of thermodynamics. Biological principles are at odds with physics —conservation, not waste is the governing principle. After gaining energy through foods, the deer's next task is to lose as little energy as possible, especially when food is in short supply. There are other needs such as losing it (cooling off) when there is too much energy, but the most critical problem in Virginia deer is getting and maintaining enough energy.

From basic physics it is known that black animals radiate large amounts of energy at night whereas white animals do not lose nearly as much. During daylight hours the black animal absorbs energy and the white animal reflects energy. Over time, evolutionary processes have resulted in the color that is best for deer day and night, summer and winter. That color is tan, nature's tradeoff between black and white.

Now a tan tail that lays flat to the body sounds like a good idea. It doesn't require any energy to hold it erect, nor does it significantly increase the body surface area which would result in more energy loss. However, there is still a problem. Suppose a completely tan tail is laying against a tan body. Then the tail could absorb heat from the body, and, like any other extremity, lose what it absorbed. Animals that lose energy rapidly do not survive. Thus a completely tan tail is not advantageous to the species. Perhaps this explains why the white *underside* of the deer's tail is laid against a white body surface. Minimum absorption and minimum energy loss occurs. It's not a perfect system, but its about as good as we know in natural systems. Why are deer's tails white? Because that is the optimum design for energy conservation, and energy conservation has longterm survival value — for deer as well as people.—*Bob Giles, Cleve Cowles*

H.S. Slogan Winner

Doris Seal of Disputanta has been awarded the prized Ben Shelor knife for her slogan "Respect is the Key to Safe Hunting," the winner in the annual Hunter Safety Motto Contest.

The 16-year-old student at Prince George High School was taught the Hunter Safety Course by Game Warden Garland Foster. Foster is himself a winner, having recently been named as Game Warden of the year by the Virginia Game Commission.

The winning slogan was selected by a panel of 20. Second place was the slogan: "A safe hunter thinks first."

The Motto Contest is open each year to students in the Hunter Safety Course.

Hunters Should Check for County Damage Stamp

The group of counties in Virginia that charge a $1.00 fee to hunters who go after deer and bear has changed this year, according to the Virginia Game Commission. This damage stamp fund is used by the counties to pay farmers and other landowners for damage to their crops or property caused by deer and bear and unrecovered damages by big game hunters occurring during the deer and bear hunting seasons.

In some counties there has been so little paid-for damage claims that the funds on hand have outstripped the limits placed on these funds by the General Assembly. Consequently, these counties will not require that a damage stamp be purchased by hunters this season. Counties which fall into this category for the 1979 hunting season include: Floyd, Patrick Rockbridge, Scott, Smyth, Washington and Wise. Hunters are advised to check the Summary of Virginia Game Laws (available at local license agents) for the eleven counties that require the purchase of a damage stamp this season.

Duck I.D. Guide

Identifying waterfowl on the wing can be a complicated business, both for hunters and those just interested in knowing exactly what is what in the waterfowl world. *Ducks at a Distance*, a booket produced by the U.S. Fish and Wildlife Service, is the ideal guide to help you in identifying ducks in fight.

The color, pocket-sized publication breaks down the different species of ducks, telling you their habitat, type of fall and winter plumage, as well as their size, shape and flight characteristics. Clearly, this information is a must for the waterfowl hunter.

The booklet is available at a cost of $.25 by writing to: Duck I.D. Guide, P.O. Box 11104, Richmond, Virginia 23230.

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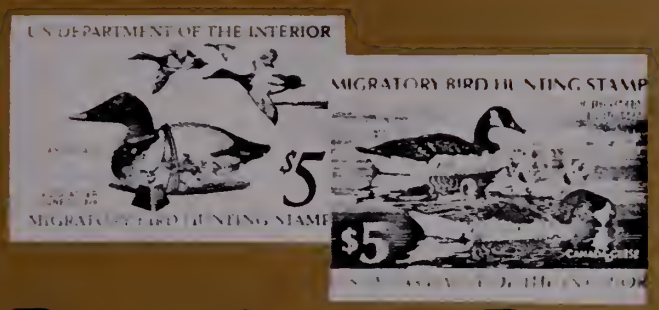
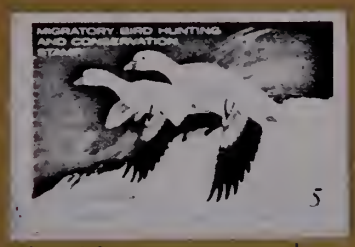
Commission Biologist Conducts Research on Wild Grapes

Dennis Martin, Game Commission Biologist from Swoope, has recently completed a study which was designed to allow biologists to recommend treatment of grape thickets. Beginning in 1973 female grape vine clumps were treated using standard forestry practices often used by the Virginia Commission of Game and Inland Fisheries, U.S. Forest Service and other forestry organizations. The trees supporting the vines were clear-cut, hinge felled, injected with herbicide, girdled or combinations of these treatments. Pruning of some vines was part of one treatment. The grapes were picked and weighed and these figures compared between treatments.

The data collected indicated the killing of the overstory or support trees by injection or girdling appears to produce the most increase in production.

The study had two major problems, according to Martin. "Grape vines do not produce grapes every year, probably because of frost damage in late spring. Secondly, timing on collecting the grapes was important because wild turkey, grouse, other birds and mammals would eat the grapes prior to sampling."





Duck Stamp Data

People who want to help conserve America's waterfowl can do so by purchasing a Migratory Bird Hunting and Conservation Stamp, popularly known as a duck stamp.

The duck stamp was created by Congress in 1934 when it passed the Migratory Bird Hunting Stamp Act. The Act required everyone age 16 or older who hunts ducks, geese, swans, or brant to carry a current, signed duck stamp, thus creating a continuing source of funds for acquisition of waterfowl habitat.

Funds from duck stamp sales are used by the Interior Department's U.S. Fish and Wildlife Service to acquire land for migratory bird refuges and waterfowl production areas. Since 1934, more than 75 million duck stamps have been sold, providing over $210 million in revenue and purchasing more than 2.3 million acres of waterfowl habitat.

The original price of the stamp was $1. Congress raised the price to $2 in 1949; $3 in 1959; and $5 in 1972. A recent price increase to $7.50 took effect July 1, 1979, providing more funds to offset rising real estate costs.

The duck stamp has changed in other ways, too. Originally, duck stamp funds were used not only to acquire refuge lands, but also to develop and maintain migratory bird refuges after they were acquired. On July 1, 1960, however, an amendment to the duck stamp act took effect which specified that stamp revenues, less the expenses for the sale of the stamps by the Postal Service, must be used to acquire land for migratory birds.

Duck stamps have also become well known to artists and stamp collectors. Before 1949, artists were commissioned to provide a design for the stamp. Since then, the design has been chosen through an annual contest sponsored by the fish and wildlife service and open to all artists who are residents or citizens of the United States. The winner receives no prize from the federal government except for an album containing a sheet of his or her stamps. But the prestige of winning the contest has enhanced many artists' reputations, and past winners have received significant compensation from selling limited edition reprints.

Duck stamps are the longest running, annually issued series of stamps in U.S. revenue or postage stamp history. Current duck stamps may be purchased at first — and second-class post offices. Since 1942 unsold, expired stamps have been turned over to the Philatelic Agency of the Postal Service for sale. Early editions have become quite valuable and are available only from private collectors or stamp dealers.

In 1976, Congress changed the official name of the stamp to the Migratory Bird Hunting and Conservation Stamp because nonhunters also buy the stamps to contribute to the U.S. conservation effort. More than 2 million hunters and conservationists annually help preserve waterfowl habitat by purchasing duck stamps.

On the Waterfront

Edited by Capt. James N. Kerrick

The Hunter and his Outboard

If you are a duck or goose hunter and you use an outboard to travel to your blind or use your boat as a floating blind, you should use extreme caution. The water is cold and you are in most cases, dressed for the occasion. It is normally dark while you are underway and the air is heavy with fog and rain. Many accidents occur because the boat is overloaded, there are heavy seas, you strike a submerged object and your boat could capsize from gale winds.

Your boat must have all the safety equipment on board and everyone should wear a personal flotation device for their own safety. If the boat should be swamped or capsized, remain with the boat, don't attempt to swim to shore. Do not disrobe or take your boots off. Water contained in boats and heavy clothing becomes warm from the body heat and will help to keep you warm. Hang onto the boat and kick your feet to keep circulation moving in your body. If the boat should get away from you try and grab the drink box, gasoline can, paddle, oar or anything that is floating.

Remember cold is increased greatly by the wind. It may be 40 degrees outside with the sun shining but a ten mile per hour wind will lower the temperature to 28 degrees. Be careful, most cases of hypothermia develop in air temperatures between 30 and 50 degrees.

It is often difficult to detect hypothermia, but if you have uncontrollable shivering, fumbling hands, vague low speech, drowsiness or apparent exhaustion you are in trouble, especially if you are in the water.

While in the water do anything you can do to keep your circulation moving and do anything to attract attention. If you are in a group, try to stay together and utilize shared body heat.

The most important piece of equipment you can have with you on a duck or goose hunt is your personal flotation device. Use it. Your PFD, in addition, helps to protect you from wind and rain.

In Nature's Garden

BY ELIZABETH MURRAY

The Evening Primrose

The evening primrose, genus *Oenothera*, is not, strictly speaking, a primrose. True primroses belong in the family Primulaceae which includes, in addition to primroses, such flowers as the true loosestrifes, shooting stars and pimpernels. But "evening" is an apt name for *Oenothera*, since one of the most notable characteristics of the genus is that the flowers open in the latter part of the day. One common name for *Oenothera biennis*, our best-known evening primrose, is four-o-clock, for that reason. Other common names are tree-primrose, coffee plant and king's cure-all.

Oenothera belongs to the Onagraceae or evening-primrose family, a group of mostly coarse herbs with flower parts in fours. The family also includes the water-primroses, Jussiaea, false loosestrife *Ludwigia*, the willow herbs, *Epilobium* and the curious little enchanter's nightshade, *Circaea*.

Gray's Manual of Botany describes the genus *Oenothera* as "a hopelessly confused and freely hybridizing group" — so for us lesser mortals, to recognise a flower as an evening primrose is quite satisfactory enough! *O. biennis* itself has at least half a dozen varieties. The typical form is a biennial (hence the specific name) with a sturdy stem that may be as much as three feet tall; thin lanceolate, alternate leaves; and showy terminal clusters of delicate yellow flowers about an inch across. The flower's evening opening is timely since it is mainly pollinated by moths flying then.

The generic name *Oenothera* is a very old one, going back to about 300 B.C. Theophrastus, a Greek philosopher, pupil of Plato and Aristotle and also a plant taxonomist, created about 500 botanical names. However, he gave the name *Oenothera* to the willow herbs, which are now called *Epilobium*, and it was only many centuries later that *Oenothera* came to rest on the evening primrose genus. The word comes from the greek word for wine, *oinos* and *thera*, meaning "imbibing." The roots of one species was supposed to be an incentive to wine drinking.

The roots of our own *Oenothera biennis* are edible, and perhaps might lead to some imbibing if not carefully prepared. They must be cooked in at least two lots of water, and also gathered out of the ground at exactly the right stage. Roots dug too early in the spring or too late in the fall have a peppery, biting quality. Correctly prepared, the roots taste like salsify or parsnip, but it is something of a tricky business!

Evening primrose is an important plant scientifically since the species *Oenothera lamarckiana* has been used extensively in cytogenetic research. The

Illustration by Lucile Walton

species has peculiar chromosome mechanics. During the meiotic divisions in which the gametes are formed, the chromosomes form into a ring instead of the paired formation of a conventional meiosis. The process is quite complicated and not totally understood, but the consequence is the production of what might be described as "pure breeding hybrids." The unusual mechanism probably increases the viability of the plant and makes it a good candidate for survival.

Certainly our own species of evening primrose, *Oenothera biennis*, seems well-suited for survival also. It has a wide distribution throughout the eastern half of the United States, growing mostly in dry, open soil under a variety of different conditions and flowering in our area from June to October.

JOHN W TAYLOR

By John W. Taylor

The Yellow-Rumped Warbler

It is with a tinge of regret that the present article must be entitled "the yellow-rumped warbler." It would have been nicer to call the bird by its old familiar name, the myrtle warbler. But to be correct, it must be called as it has been officially designated by the prestigious and authoritative American Ornithologist's Union in its latest revision of the *Check-list of North American Birds*, issued in 1973.

The myrtle warbler was then lumped with the Audubon's warbler of the western states, since the two interbreed where their ranges coincide, and so cannot qualify as two genuine species. Both are now known as the yellow-rumped warbler.

Thus, the latest episode has been completed in the long history of names given this warbler. The earliest on record seems to have been that given by George Edwards, an arm-chair British ornithologist, who wrote of the "golden-crowned flycatcher" in his *Gleanings from Natural History* 1758-64. Another early name, based on Linneaus' scientific name, *coronita*, was yellow-crowned warbler. Both Audubon and Wilson, in the early 1800's, called it the yellow-rumped warbler, though Wilson was hestitant to call it a warbler because of its flycatcher-like habits. Thomas Nuttall, in the first two editions of his *Manual for Ornithology* calls it the "yellow-rumped warbler or myrtle bird." In the 1891 revision of this work, the bird is named simply the myrtle warbler.

Whatever name it is given, it is our best-known warbler. If not the most abundant of its tribe, it is certainly the most conspicuous. And though it does not breed locally, it is present through much of the year.

In late April, or early May, when conditions are favorable, "waves" of these warblers flood the woodlands, on their way to the north. Similarly, there are days in October when hordes of them appear all of a sudden, on their return to the south.

During the spring migration, the myrtle prefers the woods; in autumn, they keep more to open country, even to the sparse shrubbery of the seacoast. The difference in routes is likely dictated by food preferences, or simply by the food available at each season.

In fall, the waxy fruit of the bayberry, and its southern relative, the wax myrtle, is basic to the sustenance of this warbler. The berries of the red cedar are relished as well, as are the fruits of the poison ivy and the Virginia creeper. Some animal matter is taken too, even at this late season. Flies are active on mild days, and there are dormant and hibernating insects to be found. Often the birds investigate cottages and beach houses, searching for insects sheltered under eaves and ledges.

In the spring, there is an abundance of emerging insect life amid the unfolding leaves of the forest trees, and the warblers vary their migratory patterns to take advantage of such bounty. Much of their food is captured at this season by fluttering and hovering, or by sallying forth after passing insects, flycatcher fashion.

The birds that form these "waves" or sudden influxes, are nearly all birds of passage, hurrying to some distant destination. But there is another population, comprised of individuals that remain to the north through November and December, and may even stay the winter through in sheltered spots where there are berries and fruits. So there are only a few months, in mid-summer, when the myrtle warbler is absent completely from our area.

For most of the year, it is a silent bird, save for the call-note, a distinctive, earily recognized "check." But with the warmth of April come bits and snatches of song, and by May the woods are alive with warbler sound. The song, though sweet and musical, is soft and unobtrusive. A warbling trill, it begins quietly, gradually increases in volume, then trails off. Rather than hearing it, one becomes aware of having listened to it.

The yellow-rump, a patch of light color above the tail, is the most prominent feature of the myrtle in any plumage. It flashes as the bird flits and hovers while feeding, or when flying away from the observer. The yellow in the crown, brightest in the spring plumage, is obscured in the fall, and never really conspicuous. The male in spring is further enhanced by the contrast of black and white about the head and breast, and the blue gray of the back. The female is patterned the same, but is more brownish. In the winter, both sexes are brownish-olive, streaked with darker hues and only hints of yellow.

Give Virginia Wildlife and Get a Gift for Yourself, Too!

Well-known artist Dick Bernard has designed this beautiful egret in a lush, swamp setting and allowed us to offer it to *Virginia Wildlife* readers who give 10 of more gift subscriptions this holiday season. This is the only time you will see this print offered outside an art gallery.

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